PTO DEPOSIT!

PTO/SB/05 (11-00) Approved for use through 10 51/2002. OMB 0651-0032 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE



EV 071848174 US

02/21/2002

Attorney Docket No. William Hildebrand, et al. First Inventor SOLUBLE HLA LIGAND DATABASE UTILIZING PREDICTIVE ALGORITHMS AND METHODS OF MAKING AND USING SAME Express Mail Label No. EV 071848174 US

(Only for new nonprovisional applications under 37 CFR 1.53(b))

ADDRESS TO: Box Patent Application ADDRESS TO: Box Patent	APPLICA	TION ELEMENTS			FOO TO:			oner for Patents
Caucher an orangeal and a deplace for fire procurang)	See MPEP chapter 600 cond	cerning utility patent application conte		אטטג				
Applicant calaims small entity status. Applicant calaims small entity status. Specification Specification - Cross Reference of the Related Applications - Cross Reference to Related Applications - Reference to sequence Isling, a table, or a computer program listing appendix - Background of the Invention - Brief Summary of the Invention - Coalmary of the Invention - Brief Summary of the Inve			7					e table or
3. X Specification	2 X Applicant claims s	mall entity status.	8	. Nucleo	otide and/or Amino	Acid Sequ		Submission
- Descriptive title of the invention - Cross Reference to Related Applications - Statement Regarding Fed sponsored R & D - Reference to Sequence Listing a papendix - Background of the Invention - Brief Summany of the Invention - Brief Description of the Drawings (if filed) - Detailed Description - Redfine Specification pgs - Claim(s) - Cl	3. X Specification (preferred arrangement			` 	•	• •	(CRF)	
- Statement Regarding Fed sponsored R & D - Reference to sequence listing, a lable, or a computer program listing appendix - Background of the Invention - Brief Summary of the Invention - Brief Description of the Drawings (if filed) - Detailed Description - Reddine Specification pgs - Claim(s) - Claim(s) - Abstract of the Disclosure 4.	 Descriptive title 	of the invention		b. Spe	ecification Sequen	ce Listing o	n:	
or a computer program Isting appendix Background of the Invention Brief Summary of the Invention Brief Description of the Drawings (if filed) Detailed Description Claim(s) Cl	- Statement Reg	arding Fed sponsored R & D			i. CD-ROM	or CD-R (2 copie	es); or
- Brief Description of the Drawings (if filed) - Brief Description of the Drawings (if filed) - Detailed Description - Redline Specification pgs - Clean Specification pgs - Clean Specification pgs - Abstract of the Disclosure - Clean Specification pgs - Clean Specifica	or a computer p	program listing appendix				6 da tal (1	· · · · · · · · · · · · · · · · · · ·	
- Detailed Description - Claim(s) - Claim(s) - Abstract of the Disclosure 4. X Drawing(s) (35 U.S.C. 113)	- Brief Summary	of the Invention	г					
- Claim(s) - Abstract of the Disclosure 4. \[\infty Drawing(s) (35 U.S.C. 113) \] [Total Sheets \] 14	 Brief Description 	n of the Drawings (if filed)	200					
Abstract of the Disclosure 4. X Drawing(s) (35 U.S.C. 113) [Total Sheets 14] 11. English Translation Document (if applicable) 5. Oath or Declaration [Total Pages 3] 12. Information Disclosure Copies of IDS Statement (IDS)/PTO-1449 Citations a. X Newly executed (original or copy) b. (For continuation of the CPR 1.63 (d)) c. DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63 (d)(2) and 1 33(b). 6. Application Data Sheet. See 37 CFR 1.76 18. If a CONTINUATION APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application and Sheet under 37 CFR 1.76: Continuation Data Sheet under 37 CFR 1.76: Continuation of Divisional Continuation of divisional application, and the prior application in the prior application in the prior application in the prior application and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76: Continuation of Divisional Continuation of divisional application and in a preliminary amendment, or in an Application and in the prior application in the prior application and in the prior application and in the prior application parts. 19. CORRESPONDENCE ADDRESS Customer Number or Ber Code Label Read Calchine No. Calchine No. Calchine State OK Zip Code 73114 Country USA Telephone (405) 478-5344 Registration No. (Attorney/Agent) 43,145				9.	,		sheet &	,
5. Oath or Declaration [Total Pages 3] 12. Statement (IDS)/PTO-1449 Citations a. Newly executed (original or copy) b. Copy from a prior application (37 CFR 1.63 (d)) b. (for continuation/divisional with Box 18 completed) i. DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63 (d)) 6. Application Data Sheet. See 37 CFR 1.76 18. If a CONTINUUNG APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Information: Continuation Divisional Continuation-in-part (CIP) Of prior application and is hereby incorporated by reference. The Incorporation gan only be relied upon when a portion has been inadvertently omitted from the submitted application parts. Customer Number or Bar Code Label Insurance Insuran	- Abstract of the	Disclosure	. [10			, ㄴ	
5. Oath or Declaration [Total Pages 3] 1 2. Newly executed (original or copy) 3. Newly executed (original or copy) 4. Newly executed (original or copy) 5. Occupy from a prior application (37 CFR 1.63 (d)) 6. DELETION OF INVENTOR(S) 6. Signed statement attached deleting inventor(s) 6. Application Data Sheet. See 37 CFR 1.76 6. Application Data Sheet. See 37 CFR 1.76 6. Application Data Sheet under 37 CFR 1.76 6. Other: 18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76: 17. Other: 18. If a CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts. 19. CORRESPONDENCE ADDRESS 19. Correspondence address below Name Dunlap, Codding & Rogers, P.C. 9400 North Broadway, Suite 420 Registration No. (Attorney/Agent) 43,145 Name (PrintlType) Douglas L Soracco Registration No. (Attorney/Agent) 43,145	4. X Drawing(s) (35 U	S.C. 113) [Total Sheets 14]] [11	English Translat	ion Docum	ent (if a	
b. Copy from a prior application (37 CFR 1.63 (d)) (for continuation/divisional with Box 18 completed) i. DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1 33(b). 6. Application Data Sheet. See 37 CFR 1.76 18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76: 18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76: 18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76: 19. Continuation 10. State of the disclosure of the prior application, from which an eath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts. 19. CORRESPONDENCE ADDRESS 19. Correspondence address below Name Dunlap, Codding & Rogers, P.C. 9400 North Broadway, Suite 420 Address City Oklahoma City State OK Zip Code 73114 Country USA Telephone (405) 478-5344 Fax (405) 478-5349 Name (Print/Type) Pouglas. Scrocco Registration No. (Attorney/Agent) 43,145	5. Oath or Declaration	[Total Pages 3]	12. 🔲			, [
b. (for continuation/divisional with Box 18 completed) i. DELETION OF INVENTOR(s) Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1 33(b). 15. (Gertified Copy of Priority Document(s) (Horeign priority is claimed) 16. Request and Certification under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent. 17. Other: Other: 18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76: Other: Group Art Unit: For continuation Divisional Continuation-in-part (CIP) of prior application No. Group Art Unit: Coronation: Examiner Group Art Unit: Group Ar	a. Inewiy execu	uted (original or copy)	ļ ·	13	Preliminary Ame	endment		
named in the prior application, see 37 CFR 1.63(d)(2) and 1 33(b). 16. Application Data Sheet. See 37 CFR 1.76 17. Other: 18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76: Continuation Divisional Continuation-In-part (CIP) of prior application No.:	b. Copy from a	pnor application (37 CFR 1.63 (0)) tionIdivisional with Box 18 completed,	, <i> </i>	14. X				503)
named in the prior application, see 37 CFR 1.63(d)(2) and 1 33(b). 16. Application Data Sheet. See 37 CFR 1.76 17. Other: 18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76: Continuation Divisional Continuation-In-part (CIP) of prior application No.:			ŀ	15.	Certified Copy o	f Priority D	ocume	nt(s)
6. Application Data Sheet. See 37 CFR 1.76 18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76: Continuation Divisional Continuation-In-part (CIP) of prior application No.:	named in t	he prior application, see 37 CFR	1.	16.	Request and Ce	ertification u	ınder 3	5 U.S.C. 122
18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76: Continuation Divisional Continuation-in-part (CIP) of pnor application No.: Prior application information: Examiner Group Art Unit: For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts. 19. CORRESPONDENCE ADDRESS Customer Number or Bar Code Label (Itisart Customer No. or Alfact has code label Tiers) or X Correspondence address below Name Dunlap, Codding & Rogers, P.C. 9400 North Broadway, Suite 420 Address City Oklahoma City State OK Zip Code 73114 Country USA Telephone (405) 478-5344 Fax (405) 478-5349 Name (Printl Type) Douglas Sorocco Registration No. (Attorney/Agent) 43,145		and 1 33(b).					auacn	10mm P10/5B/35
or in an Application Data Sheet under 37 CFR 1.76: Continuation Divisional Continuation-in-part (CIP) of prior application No.: Prior application information: Examiner Group Art Unit: For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts. 19. CORRESPONDENCE ADDRESS Customer Number or Bar Code Label Insert Customer No. or Alfacti has code label Insert Customer No. Or I	6. Application Data	Sheet. See 37 CFR 1.76	ľ	17.	Other:			
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For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts. 19. CORRESPONDENCE ADDRESS Customer Number or Bar Code Label			CIP)	of pr	or application No.:			
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The Incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts. 19. CORRESPONDENCE ADDRESS Or X Correspondence address below Name Dunlap, Codding & Rogers, P.C. 9400 North Broadway, Suite 420 Address City Oklahoma City State OK Zip Code 73114 Country USA Telephone (405) 478-5344 Fax (405) 478-5349 Name (Print/Type) Douglas Scrocco Registration No. (Attorney/Agent) 43,145								
Customer Number or Bar Code Label Customer Number or Bar Code Label Customer No or Alfach but code label free)								
Name Dunlap, Codding & Rogers, P.C. 9400 North Broadway, Suite 420 Address City Oklahoma City State OK Zip Code 73114 Country USA Telephone (405) 478-5344 Fax (405) 478-5349 Name (Print/Type) Douglas I Serocco Registration No. (Attorney/Agent) 43,145	19. CORRESPONDENCE ADDRESS							
9400 North Broadway, Suite 420 Address City Oklahoma City State OK Zip Code 73114 Country USA Telephone (405) 478-5344 Fax (405) 478-5349 Name (Print/Type) Douglas I Scrocco Registration No. (Attorney/Agent) 43,145	Customer Number or Bar Co	ode Label (Insert Gustomer No or Alls	ich ber code la	bel here)	or X	Correspon	ndence ad	ddress below
Address City Oklahoma City State OK Zip Code 73114 Country USA Telephone (405) 478-5344 Fax (405) 478-5349 Name (Print/Type) Douglas I Serocco Registration No. (Attorney/Agent) 43,145	Name	Dunlap, Codding & Rogers, P.C.						
City Oklahoma City State OK Zip Code 73114 Country USA Telephone (405) 478-5344 Fax (405) 478-5349 Name (Print/Type) Douglas I Serocco Registration No. (Attorney/Agent) 43,145		9400 North Broadway, Suite 420						
Country USA Telephone (405) 478-5344 Fax (405) 478-5349 Name (Print/Type) Douglas I Serocco Registration No. (Attorney/Agent) 43,145	Address							
Name (Print/Type) Douglas L Sorocco Registration No. (Attorney/Agent) 43,145	City	Oklahoma City	State	9 0	K	Zip	Code	73114
Name (Finiti Type)	Country	USA	Telephon	e (40	05) 478-5344	F	ax	(405) 478-5349
	Name (Print/Type)	Douglas L Sorocco		Registra	ation No. (Attorn	ey/Agent)	43,1	45
	Signature	$\langle \cdot \rangle$			-	Date	2/2	21/02

Box Patent Application SEND TO: Commissioner for Patents Washington, D.C. 20231



EV 071848174 US 02/21/2002

PTO/SB/17 (11-00)
Approved for use through 10/3/1/2002. OMB 0651-0032
L.S. Patent and Trademark Office; U.S. DERARTMENT OF COMMERCE

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FEE TRANSMITTAL for FY 2001

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT

(\$) 370

Complete if Known har a booking, r.o.					
Application Number	Not Yet Assigned				
Filing Date	Herewith				
First Named Inventor	William Hildebrand, Kiley Prilliman, et al.				
Examiner Name	Not Yet Assigned				
Group Art Unit	Unknown				
Attorney Docket No.	6680.040				

METHOD OF PAYMENT	FEE CALCULATION (continued)				
1. X The Commissioner is hereby authorized to charge indicated fees and credit any overnayments to:	3. ADDITIONAL FEES				
indicated fees and credit any overpayments to: Deposit	Large Small				
Account Number 04-1700	Entity Entity Fee Fee Fee Fee Fee Description	Fee Paid			
Deposit	Code (\$) Code (\$)	reeralu			
Account Name Dunlap, Codding & Rogers, P.C.	105 130 205 65 Surcharge - late filing fee or oath				
Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17	127 50 227 25 Surcharge - late provisional filing fee or cover sheet				
Applicant claims small entity status.	139 130 139 130 Non-English specification				
See 37 CFR 1.27	147 2,520 147 2,520 For filing a request for ex parte reexamination				
2. Payment Enclosed: Check Credit card Money Other	112 920* 112 920* Requesting publication of SIR prior to Examiner action				
FEE CALCULATION	113 1,840* 113 1,840* Requesting publication of SIR after Examiner action				
1. BASIC FILING FEE	115 110 215 55 Extension for reply within first month				
Large Entity Small Entity	116 400 216 200 Extension for reply within second month				
Fee Fee Fee Fee Description Code (\$) Code (\$) Fee Paid	117 920 217 460 Extension for reply within third month				
101 740 201 370 Utility filing fee 370	118 1,440 218 720 Extension for reply within fourth month				
106 330 206 165 Design filing fee	128 1,960 228 980 Extension for reply within fifth month				
107 510 207 255 Plant filing fee	119 320 219 160 Notice of Appeal				
108 70 208 370 Reissue filing fee	120 320 220 160 Filing a brief in support of an appeal				
114 160 214 80 Provisional filing fee	121 280 221 140 Request for oral hearing				
01170701 (4) (6) 070	138 1,510 138 1,510 Petition to institute a public use proceeding				
SUBTOTAL (1) (\$) 370	140 110 240 55 Petition to revive - unavoidable				
2. EXTRA CLAIM FEES Fee from	141 1,280 241 640 Petition to revive - unintentional				
Ext <u>ra Claims</u> <u>below</u> <u>Fee Paid</u>	142 1,280 242 640 Utility issue fee (or reissue)				
Total Claims	143 460 243 230 Design issue fee				
Independent 3 - 3 ** = 0 X 42 = 0	144 620 244 310 Plant issue fee				
Mult.Dependent X = X	122 130 122 130 Petitions to the Commissioner				
	123 50 123 50 Processing fee under 37 CFR 1.17(q)				
Large Entity Small Entity Fee Fee Fee Fee Fee Description	126 180 126 180 Submission of Information Disclosure Stmt				
Code (\$) Code (\$) 103 18 203 9 Claims in excess of 20	581 40 581 40 Recording each patent assignment per property (times number of properties)				
102 84 202 42 Independent claims in excess of 3	146 740 246 370 Filing a submission after final rejection	1			
104 280 204 140 Multiple dependent claim, if not paid	(37 CFR § 1.129(a))				
109 84 209 42 ** Reissue independent claims over original patent	149 740 249 370 For each additional invention to be examined (37 CFR § 1.129(b))				
110 18 210 9 ** Reissue claims in excess of 20	179 740 279 370 Request for Continued Examination (RCE)				
and over original patent	169 900 169 900 Request for expedited examination of a design application				
SUBTOTAL (2) (\$) 0	Other fee (specify)				
**or number previously paid, if greater; For Reissues, see above	*Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 0				

SUBMITTED BY				Complete (if	applicable)
Name (Pnnt/Type)	Douglas J. Spreoco	Registration No. (Attorney/Agent)	43,145	Telephone	(405) 478-5344
Signature	1/1/1/			Date	02/21/2002

PATENT APPLI	CATION FEE DI	ETERMINATI	ON RECORI) [oplication or 6680.040	Docke	t Number	
	CLAIMS AS FILED - (Column 1)		umn 2)	SMALL E	ENTITY	OR	OTHER TO	
FOR	NUMBER FILED	NUMBER	EXTRA	RATE	FEE		RATE	FEE
BASIC FEE (37 CFR 1.16(a))					\$ <u>370</u>	OR		\$ _. 0
TOTAL CLAIMS (37 CFR 1.16(c))	5 minu	s 20 = * 0	120 342 6	x \$ <u>9</u> =	0	OR	x \$ 18 =	0
INDEPENDENT CLAIMS (37 CFR 1.16(b))	3 min	us 3 = * 0		x 42 _=	0	OR	x_84_=	0
MULTIPLE DEPENDENT	CLAIM PRESENT (37	CFR 1.16(d))	0	+ 140 =	0	OR	+ <u>280</u> =	0
If the difference in column 1 is les	ss then zero, enter "0" in colum	nn 2		TOTAL	355	OR	TOTAL	0
(Col	CLAIMS AS AME	NDED - PART I	(Column 3)	SMALL F	ENTITY	OR	OTHER T	
REM AI	AIMS IAINING FTER NDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDI- TIONAL FEE		RATE	ADDI- TIONAL FEE
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Independent *	Minus	*** 3	= 0	x <u>42</u> =	0	OR	x <u>84</u> =	0
	TION OF MULTIPLE DEF	PENDENT CLAIM (3	7 CFR 1.16(d))	+ 140 =	0	OR	+ 280 =	0
(Co	lumn 1)	(Column 2)	(Column 3)	TOTAL ADDIT. FEE	0	OR _A	TOTAL DDIT. FEE	0
M REM	AIMS IAINING FTER NDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDI- TIONAL FEE		RATE	ADDI- TIONAL FEE
Total *	Minus	**	=	x \$ 9 _=	0	OR	x \$ <u>18</u> =	0
Independent * (37 CFR 1.16(b))	Minus	***	=	x_42=	0	OR OR	x <u>84</u> =	o
7	TION OF MULTIPLE DEI	PENDENT CLAIM (37 CFR 1.16(d))	+ 140 =	0	OR	+ _280_=	0
(Co	dumn 1)	(Column 2)	(Column 3)	TOTAL ADDIT. FEE	0	OR _A	TOTAL DDIT. FEE	0
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Total *	Minus	**	=	x \$ <u>9</u> =	0	OR	x \$ <u>18</u> =	0
A AME Total (37 CFR 1.16(c)) Independent (37 CFR 1.16(b)) *	Minus	***	=	x <u>42</u> =	0	OR OR	x84=	0
'	TION OF MULTIPLE DE	PENDENT CLAIM (3	7 CFR 1.16(d))	+ _140 =	0	OR	+ 280 =	0
				TOTAL	. 0	OR	TOTAL	0